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MAYO CLINIC WEBSITE ARTICLE  
ON MIGRAINE TREATMENT



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## Brain & Nervous System Center

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## Migraine

### Treatment

At one time, aspirin was almost the only available treatment for headaches. Now there are drugs specifically designed to treat migraines. Several drugs commonly used to treat other conditions also may help relieve migraines in some people. All of these medications fall into two classes — those that reduce or prevent migraines (preventive medications), and those that stop pain once it has started (pain-relieving medications).

Choosing a preventive strategy or a pain-relieving strategy depends on the frequency and severity of your headaches, the degree of disability your headaches cause and other medical conditions you may have. You may be a candidate for preventive therapy if you have two or more debilitating attacks a month, if you use pain-relieving medications more than twice a week, if pain-relieving medications aren't helping or if you have uncommon migraines.

Some medications aren't recommended if you're pregnant or breast-feeding. Some aren't used for children. Your doctor can help find the right medication for you.

### Pain-relieving medications

For best results, take pain-relieving drugs as soon as you experience migraine signs or symptoms. It may help if you rest or sleep in a dark room after taking them:

- **Mild pain relievers.** Over-the-counter (OTC) medications such as ibuprofen (Advil, Motrin, others), aspirin and NSAIDs may help relieve mild migraines. Drugs marketed specifically for migraine, such as the combination of acetaminophen, aspirin and caffeine (Excedrin Migraine), also may ease moderate migraines, but aren't effective alone for severe migraines. If OTC medications don't help, your doctor may suggest a stronger, prescription-only version of the same drug. If taken too often or for long periods of time, NSAIDs can lead to ulcers, gastrointestinal bleeding and rebound headaches.
- **Triptans.** Sumatriptan (Imitrex) was the first drug specifically developed to treat migraines. It mimics the action of serotonin by binding to serotonin receptors and causing blood vessels to constrict. Sumatriptan is available in oral, nasal and injection form. Injected sumatriptan works faster than any other migraine-specific medication — in as little as 15 minutes — and is effective in 70 percent to 80 percent of cases. But injections may be inconvenient and painful. Since the introduction of sumatriptan, a number of similar drugs have become available, including rizatriptan (Maxalt), naratriptan (Amerge), zolmitriptan (Zomig), almotriptan (Axert), frovatriptan (Frova) and eletriptan (Relpax). These newer agents provide pain relief within two hours in 60 percent to 91

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newer agents provide pain relief within two hours in 60 percent to 91 percent of patients, have fewer side effects and cause fewer recurring headaches. Side effects of triptans include nausea, dizziness and muscle weakness and, rarely, stroke and heart attack.

- **Ergots.** Drugs such as ergotamine (Ergomar) and dihydroergotamine (D.H.E. 45) and dihydroergotamine nasal spray (Migranal) help relieve pain. These drugs may have more side effects than triptans.
- **Medications for nausea.** Metoclopramide (Reglan) is useful for relieving the nausea and vomiting associated with migraines, not the migraine pain itself. It also improves gastric emptying, which leads to better absorption and more rapid action of many oral drugs. It's most effective when taken early in the course of your migraine or even during the aura before your headache begins. Prochlorperazine (Compazine) and chlorpromazine (Thorazine) also may relieve nausea but do not affect gastric emptying.
- Stroke
- Heart attack

#### Preventive medications

Preventive medications can reduce the frequency, severity and length of migraines and may increase the effectiveness of pain-relieving medicines used during migraine attacks. In most cases, preventive medications don't eliminate headaches completely, and some can have serious side effects. For best results, take these medications every day, as your doctor recommends:

- **Nonsteroidal anti-inflammatory drugs (NSAIDs).** Regularly taking over-the-counter NSAIDs such as ibuprofen (Advil, Motrin, others) and naproxen sodium (Aleve, Anaprox) may reduce the frequency of migraines. If these medications don't help, your doctor may suggest a stronger, prescription-only version of the same drug. However, long-term use of these medications can lead to ulcers and gastrointestinal problems. Talk to your doctor before taking these medications regularly — even the nonprescription varieties.
- **Cardiovascular drugs.** Studies consistently show that beta blockers — which are commonly used to treat high blood pressure and coronary artery disease — can reduce the frequency and severity of migraines. Calcium-channel blockers, another class of cardiovascular drugs, especially verapamil (Calan, Isoptin), also may be helpful. In addition, recent studies suggest that the antihypertensive medications lisinopril (Prinivil, Zestril) and candesartan (Atacand) are useful migraine prevention medications. Researchers don't understand exactly why all of these cardiovascular drugs prevent migraines. Side effects can include dizziness, drowsiness or lightheadedness. Beta blockers can also raise blood sugar levels and mask symptoms of low blood sugar in people with diabetes.
- **Antidepressants.** Certain antidepressants are good at helping prevent all types of headaches, including migraines. Most effective are tricyclic antidepressants such as amitriptyline (Elavil), nortriptyline (Pamelor) and protriptyline (Vivactil). These medications may reduce migraines by affecting the level of serotonin and other brain chemicals. You don't have to have depression to take these drugs.
- **Antiseizure drugs.** Although the reason is unclear, some antiseizure drugs such as divalproex sodium (Depakote), valproic acid (Depakene), topiramate (Topamax) and gabapentin (Neurontin), which are used to treat epilepsy and bipolar disease, seem to prevent migraines. Taken in high doses, however, these antiseizure drugs can cause side effects such as nausea and vomiting, diarrhea, cramps, hair loss and dizziness.
- **Cyproheptadine (Periactin).** This antihistamine specifically affects serotonin activity. Doctors sometimes give it to children as a preventive measure.
- **Botulinum toxin (Botox).** Some people receiving Botox injections for

- **Botulinum toxin (Botox).** Some people receiving Botox injections for their facial wrinkles have noted improvement of their headaches. Some researchers believe that Botox may work by soothing muscle tension in your head or interfering with the neurologic changes that cause migraines. Additional research is necessary.
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September 05, 2003

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